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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,682	07/21/2003	Joseph A. King	5783	5313

7590 08/11/2006

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EXAMINER	
TSOY, ELENA	

ART UNIT	PAPER NUMBER
1762	

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/623,682	KING ET AL.	
	Examiner	Art Unit	
	Elena Tsoy	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 June 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *8-20* is/are pending in the application.

4a) Of the above claim(s) *11 and 13-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-10 and 12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Request for Reconsideration

1. Request for Reconsideration filed on 6/23/2006 has been entered. Claims 8-20 remain pending in the application. Claims 11, and 13-20 are withdrawn from consideration as directed to a non-elected invention.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 8, 9 stand rejected under 35 U.S.C. 102(b) as being anticipated by KR 8902848 and Minami (US 3,866,568) or Takahashi et al (US 5,567,539) for the reasons of record set forth in paragraph 8 of the Office Action mailed on 6/28/2005.

5. Claims 8-10 stand rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 78010390 (JP 53010390) for the reasons of record set forth in paragraph 5 of the Office Action mailed on 4/11/2006.

6. Claims 8, 9 stand rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 78020780 (JP 53020780) for the reasons of record set forth in paragraph 10 of the Office Action mailed on 6/28/2005.

7. Claims 8, 9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over KR 8902848 in view of Oehler et al (US 5,820,927) for the reasons of record set forth in paragraph 11 of the Office Action mailed on 6/28/2005.

8. Claims 8-10, 12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over KR 8902848/JP 780100390 (JP 53010390)/JP 78020780 (JP 53020780) in view of Rosenblatt (US 6,365,169) for the reasons of record set forth in paragraph 12 of the Office Action mailed on 6/28/2005.

9. Claim 10 stands rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 78020780 (JP 53020780) for the reasons of record set forth in paragraph 9 of the Office Action mailed on 4/11/2006.

Response to Arguments

10. Applicants' arguments filed 6/23/2006 have been fully considered but they are not persuasive.

(A) Applicants argue that the references of Minami and Takahashi et al. each do not teach the step of applying metal ion yielding materials in particle form to an adhesive on a web. Therefore, they cannot be used in anticipation rejection.

The Examiner disagrees. **MPEP 2131.01** guides that "Normally, only one reference should be used in making a rejection under 35 U.S.C. 102. However, a 35 U.S.C. 102 rejection over *multiple* references has been held to be proper when the extra references are cited to:

(A) Prove the primary reference contains an "enabled disclosure; "

(B) Explain the meaning of a term used in the primary reference; or

(C) Show that a characteristic not disclosed in the reference is inherent".

Each of Minami and Takahashi et al is applied as evidence to **confirm** the Examiner' **interpretation** of a **term** "drying" of holt melt adhesive. Therefore, according to MPEP, 102 rejection over multiple references where each of Minami and Takahashi et al. is applied **to explain the meaning of a term used in the primary reference** of KR 8902848 (KR 8902848 teaches the step of applying metal ion yielding materials in particle form to an adhesive) is proper even though the references of Minami and Takahashi et al. each do not teach the step of applying metal ion yielding materials in particle form to an adhesive on a web.

(B) Applicants submit that the reference of KR 8902848 is unclear whether the activated carbons are fusion bonded to the adhesive or the non-woven fabric itself.

The translated text (See Applicants' translation) describes the relevant part as follows: "When forming the filter 8, one side of the non-woven fabrics 11' and 11" is coated with an adhesive, and **the adhesive-coated side** is fusion bonded to the activated carbon to fix the activated carbon" (See page 4, lines 20-22). Oral translation by the Primary Examiner Tae Yoon confirms the USPTO translation. The USPTO translation describes that the adhesive is **spread on one surface** (note: NOT **on one end** of the fabric) of the unwoven fabrics (11') and (11") and the adhesive-treated surfaces are set toward the **active end** (clearly, *active* carbon) and thermally fused, so that the *activated* carbons are fixed. It seems that the USPTO translation also confirms that the *activated* carbons and the fabrics are fixed by the adhesive because the adhesive is spread on a *whole* surface.

(C) Applicants argue that with the rejection over JP 78020780 because they do not agree with the Examiner that adhesive of any kind should be dried (cooled, cured) because an adhesive can also adhere without having to dry.

The argument is unconvincing because **epoxy resin** of JP 78020780 is an adhesive which dries (cures) due to presence of reactive epoxy groups. Moreover, the Applicants' specification does not define the term "drying". It is held that during patent examination, the pending claims must be "given the broadest reasonable interpretation consistent with the specification." Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969). The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. In re Cortright, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999). Note that the term "**drying**" is used those skilled in the art for ***solidification*** of fusion (molten) bonded adhesives, as evidenced by US 20060127635 to Colson et al disclosing that a cohesive web of non-woven parallel yarns can be made by contacting only one side of said parallel array of yarns with a thin coating of wet or *molten* adhesive; and **drying** the wet or ***molten*** **adhesive** coating (See claim 11); or by JP 01301291 disclosing quick-**drying** adhesive 25 melted by heat (See Abstract). It is well known in the art that the term "drying" is used interchangeably with the terms "cooled" and "cured", as evidenced by US 6238448 to Rouse et al (See column 10, lines 2-3), Minami (See column 1, lines 14-18; column 2, lines 6-8; column 4, lines 26-27) and

Takahashi et al (See column 20, lines 15-22). Therefore, the Office's broadest reasonable interpretation of the term "dried" is consistent with the Applicants' specification and is also be consistent with the interpretation that those skilled in the art would reach.

In contrast to Applicants statement, the Applicant's specification does NOT teach the ***drying*** of the epoxy resin on page 6, line 9, to secure metal ion yielding particles. The claimed drying step is, therefore, only *implied* by the Applicants.

(D) Applicants argue that claim 10 is patentable over JP 780100390 because a flexible substrate 21 of JP 780100390 is not claimed solid structure.

The argument is unconvincing because according to the Merriam-Webster's Collegiate Dictionary, tenth edition, a term "solid" means a structure of uniformly close and coherent texture. Therefore, a flexible substrate 21 of JP 780100390 is a **solid** substrate. Besides, those skilled in the art associate the term "solid" with flexible substrates or films, as evidenced by US 4152272 to Young (See column 8, lines 5-6), by US 4623592 to Daude et al (See column 2, lines 60-61).

(E) Applicant submits that Rosenblatt's column 8, lines 9-12 does not teach the curing or setting of Rosenblatt's PVA with iodine to Rosenblatt's substrate. Rosenblatt's column 8, lines 9-12 instead teaches that the curing of Rosenblatl's various substrates provides Rosenblatt's substrates with "...iodine complexing potential, that is (referring back to column 3, lines 43-45 of Rosenblatt) the ability to complex "with an iodine solution containing excess iodine."

The Examiner respectfully disagrees with this argument. In paragraph 12 of the Office Action mailed on 6/28/2005 the Examiner cited column 6, lines 36-44 for applying PVA adhesive. Rosenblatt teaches spraying PVA *adhesive* (See column 8, line 2) to a selected surface for the use in e.g. water filters (See column 8, line 11), ***curing*** (setting) the PVA layer, then spraying an iodine complexing solution over the **partially dried** (i.e. partially *cured)* PVA layer (See column 6, lines 9-20). Other antimicrobial components can be incorporated into the PVA/iodine solutions (See column 6, lines 36-44). Note that an adhesive together with iodine (which may not be in a particle form) may be used for securing *other antimicrobial* components in a *particle* form. Therefore, Rosenblatt does teach the curing or setting of Rosenblatt's PVA with iodine on a substrate.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Thursday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ELENA TSOY
PRIMARY EXAMINER

Elena Tsoy
Primary Examiner
Art Unit 1762

August 8, 2006